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(54) Title of the Invention: Metal Can for Beverages

(57) Abstract

[Object] To provide a metal can for beverages from which a tab or a portion of the top wall thereof does not detach when a drinking hole is opened, the can requiring a small amount of strength to open the drinking hole thereof. Also, to provide a metal can for beverages from which the beverage within does not readily spill when the drinking hole is opened with the can held in a tilted position.

[Means for achieving the object] An almost U-shaped scored line 2b for forming a straw insertion hole is formed in the top wall, and a tab 5 is attached within the bending portion in the almost U-shaped scored line 2b in the top wall. Pulling the tab 5 causes the portion within the almost U-shaped scored line 2b to pull away from the top wall to open a straw insertion hole 2c. The scored line 2c should be formed at the approximate center of the top wall. A neck portion 2a may be formed and a straw wrapped therearound in a freely detachable manner.

<sup>1</sup> Translator's note: A typo: Should be 2b.

## Scope of the Claims

[What is claimed is:]

1. A metal can for beverages in which
  - an almost U-shaped scored line for opening a straw insertion hole is formed in a top wall;
  - a tab is attached within a bending portion in the almost U-shaped scored line in the top wall; and
  - the pulling of the tab causes the portion within the almost U-shaped scored line to detach from the top wall to open a straw insertion hole.
2. The metal can for beverages according to Claim 1, wherein the scored line is formed at the approximate center of the top wall.
3. The metal can for beverages according to Claim 1 or 2, wherein
  - a neck portion is formed; and
  - a straw is wrapped therearound in a freely detachable manner.

## Detailed Description of the Invention

[0001]

### Technical Field of the Invention

The invention relates to a metal can for beverages into which soft drinks and other beverages are put. Specifically, the invention relates to a metal can for beverages comprising a straw insertion hole formed in the top wall into which a straw is inserted and from which the beverage within is consumed.

[0002] The term "almost U-shaped" used in the specification refers not only to a U-like shape and includes a V shape and an arc.

[0003]

### Prior Art

Conventionally, an item called a pull tab or an item called a stay-on tab was used to open the drinking hole of this type of metal can for beverages.

[0004] A pull tab refers to an item formed when an endless cut is scored in a top wall and a portion of one end slightly toward the center of a tab is attached within the scored line in the top wall.

[0005] Lifting the other end of the tab causes the area within the scored line to be slightly pushed inward by the first end of the tab, a portion of the top wall along with the tab to detach, and the drinking hole to open. In other words, the tab and part of the upper wall are constructed so as to detach from the can.

[0006] Stay-on tabs were introduced because tabs and the part of the upper wall removed from cans were disposed and brought about environmental conservation problems. A portion of a tab slightly toward one end from the center is attached to the top wall. Lifting the portion on the other end of the tab opposite the portion of the tab attached to the top wall causes a portion of the top wall of the can to be pushed within the can by the portion of the first end toward the portion attached to the top wall of the can. In the case of a stay-on tab, the tab does not separate from the can.

[0007]

### Problems the Invention is to Solve

The above pull tab is problematic in that the tab and a portion of the top wall of the can detach from the can and may be thrown away onto the street or a similar location, which is not favorable from the viewpoint of environmental conservation.

[0008] In the case of the stay-on tab, wherein a part of a tab slightly toward one end from the center is attached to the top wall, the drinking hole must be opened by lifting the portion on the other end of the tab opposite the portion of the tab affixed to the top wall in order to cause a portion of the top wall of the can to be pushed within the can by the portion of the first end attached to the top wall of the can. However, a length between the portion affixed to the tab and the first end of the can [illegible: tab?] adequate to ensure the drinking hole is of a sufficient size, is necessary. Therefore, the length between one end of the tab and the portion of the tab affixed to the can becomes relatively long and requires a larger amount of strength to lift the tab than is needed to lift a pull tab. This is particularly problematic when young children or the elderly attempt to open such a can.

[0009] Moreover, as opening the drinking hole at the center of the top wall is difficult in the case of a stay-on tab, the tab is lifted with the can held in a tilted position, which may problematically cause the beverage to spill from inside when the can is opened.

[0010] The object of the invention is to provide a metal can for beverages from which a tab or a portion of the top wall thereof do not detach when a drinking hole is opened, the can requiring a small amount of strength to open the drinking hole thereof.

[0011] The invention further provides a metal can for beverages from which the beverage does not readily spill from inside when the tab is lifted with the can held in a tilted position.

[0012]

#### **Means for Solving the Problems**

In order that the above problems be solved, in the metal can for beverages of the invention, an almost U-shaped scored line for opening a straw insertion hole is formed in a top wall, a tab is attached within the bending portion in the almost U-shaped scored line in the top wall, and the pulling of the tab causes the portion within the almost U-shaped scored line to detach from the top wall to open a straw insertion hole.

[0013] In the metal can, the almost U-shaped scored line may be formed at the approximate center of the top wall.

[0014] In addition, a neck portion may be formed and a straw wrapped therearound in a freely detachable manner.

[0015]

#### **Preferred Embodiment of the Invention**

Hereafter, the metal can for beverages of one embodiment of the invention will be described in reference to Figs. 1 and 2.

[0016] The metal can for beverages (1) comprises a metal can body (2). A neck portion (2a) is formed in the metal can body (2). A bag (3) made of, for example, polyvinyl chloride, containing therein a straw (4) is attached to the neck portion (2a) with the straw (4) wrapped around the neck portion (2a) in a freely detachable manner. The bag (3) is adhered so it can be easily removed from the can body (2) by a person.

[0017] An almost U-shaped scored line (2b) for forming a straw insertion hole is fashioned at the approximate center of the top wall of the metal can body (2). In the metal can of this embodiment in particular, the bending portion within the scored line is formed so that it is located at the approximate center of the top wall of the can body (2). A portion of one end of a tab (5) slightly toward the center is attached to the bending portion within the almost U-shaped scored line in the top wall of the can body (2) by a rivet.

[0018] In the case of the metal can for beverages (1), which is constructed in the above manner, lifting the tab (5) causes the portion within the almost U-shaped scored line (2b) to pull away from the top wall of the can body (2) to open a straw insertion hole (2c) in the approximate center of the top wall of the can body (2), as is shown in Fig. 2.

[0019] The bag (3) is removed from the neck portion (2a), the straw (4), having been removed from the bag (3), is inserted into the straw insertion hole (2c), and the beverage within the can body (2) is consumed.

[0020] The metal can for beverages (1) holds a beverage within the metal can body (2) and can thus be used for a carbonated beverage, which would cause the pressure within the can body (2) to rise. Moreover, the straw insertion hole (2c) is used as the drinking hole, which need be only of a size adequate for inserting the straw (4)—10 mm at most—so the area opened for the insertion hole (2) is smaller than those of the drinking holes formed by the pull tabs or stay-on tabs of the prior-art metal cans for beverages. Therefore, the strength required to open the straw insertion hole (2c)—the drinking hole—is less than that conventionally needed. Young children and the elderly alike are therefore able to easily open the drinking hole (straw insertion hole (2c)).

[0021]

#### **Effects of the Invention**

In the case of the metal can for beverages described above, neither the tab nor a part of the top wall detach from the can when the tab is pulled and the straw insertion hole opened, so no environmental problems are created.

[0022] The invention comprises a tab shaped no differently from a pull tab and does not require the strength needed to open the drinking hole with a stay-on tab. Forming the scored line at the approximate center of the top wall so the straw insertion hole will open in the approximate center of the top wall of the can means that the beverage within will not readily spill out even when the can is held in a slightly tilted position.

[0023] With the neck portion formed in the can and a straw wrapped therearound in a freely detachable manner, a straw need not be obtained separately. Furthermore, the straw is wrapped around the neck portion, which has a diameter less than that of the trunk of the can, so the straw will not hinder storage or transportation of the can.

#### **Brief Description of the Drawings**

Fig. 1 is a perspective view of the main parts of the metal can for beverages of one embodiment of the invention before the straw insertion hole has been opened.

Fig. 2 is a perspective view of the main parts of the same metal can for beverages after the straw insertion hole has been opened.

**Reference Numerals**

- (1) Metal can for beverages
- (2) Metal can body
- (2a) Neck portion
- (2b) Scored line
- (2c) Straw insertion hole
- (4) Straw
- (5) Tab

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**F Terms (Reference)**

3E062 AA04 BA04 BB06 BB10  
3E084 AA02 AA22 AB01 CA01 CB01  
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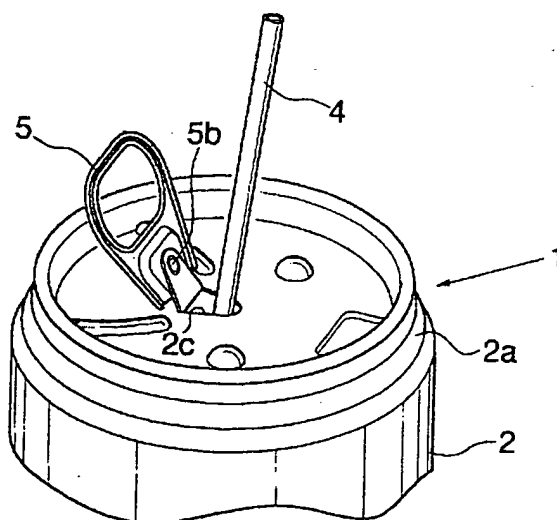
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(54) 【発明の名称】 飲料用金属缶

(57) 【要約】

【課題】 飲み口をあけてもタブや頂壁の一部が缶から離れることがなく、かつ飲み口をあけるさいに要する力の小さい飲料用金属缶を提供する。さらに、缶を傾けた状態で飲み口をあけても内部の飲料のあふれにくい飲料用金属缶を提供する。

【解決手段】 頂壁にストロー差し入れ口形成用略U字状スコアライン2bを形成し、頂壁における略U字状スコアライン2bの屈曲部内側にタブ5を取り付ける。タブ5を引くと略U字状スコアライン2bの内側部分が頂壁から切り起こされてストロー差し入れ口2cがあく。スコアライン2cを頂壁略中央部に形成するとよい。ネック部2aを形成し、ネック部2aに、ストロー4を巻き付けた状態でかつ取り外し自在に取り付けてもよい。



アラインの屈曲部内側が缶本体(2)の頂壁略中央部に位置するように形成されている。そして缶本体(2)の頂壁における略U字状スコアラインの屈曲部内側に、タブ(5)の一端側わずかに中央より部分がリベット(5b)によって取り付けられている。

【0018】このような構成を有する飲料用金属缶(1)においては、タブ(5)を引き起こすと、図2に示したように、略U字状スコアライン(2b)の内側部分が缶本体(2)の頂壁から切り起こされて、缶本体(2)の頂壁略中央部にストロー差し入れ口(2c)がかけられる。

【0019】そして、ネック部(2a)から袋(3)を取り出し、この後、ストロー差し入れ口(2c)に、袋(3)から取り出したストロー(4)を差し入れて缶本体(2)内の飲料を飲む。

【0020】この飲料用金属缶(1)は金属缶本体(2)内に飲料を入れるので、缶本体(2)内の圧力が高くなる炭酸飲料にも使用できる。また、飲み口としてストロー差し入れ口(2c)がかけられ、この差し入れ口(2c)はストロー(4)を差し入れるのに十分な大きさ、最大で10mm程度であればよいので、差し入れ口(2)の開口面積を、従来の飲料用金属缶においてプルタブやステイオンタブによってかけられる飲み口の開口面積より小さくすることができる。従ってストロー差し入れ口(2c)すなわち飲み口をあけるのに要する力は小さくなる。このため、老人や幼児でも容易に飲み口(ストロー差し入れ口(2c))をあけることができる。

【0021】

【発明の効果】上記飲料用金属缶においては、タブを引いてストロー差し入れ口を開けた後も、頂壁の一部およ

びタブが缶から離れないので環境保全上問題になることがない。

【0022】さらに、タブの形状はプルタブの場合と異なりなく、ステイオンタブのように飲み口をあけるのに要する力が大きくなることがない。そして、スコアラインを缶の頂壁略中央部に形成し、ストロー差し入れ口が缶の頂壁略中央部にあくようにすれば、缶を多少傾けた状態で差し入れ口をあけても内部の飲料が缶からあふれ出にくくなる。

【0023】缶にネック部が形成され、ネック部にストローを巻き付けた状態でかつ取り外し自在に取り付けられ、別途ストローを用意する必要がない。また、缶の胴部の径に比して径の小さいネック部にストローが巻き付けられているので、缶の保管、運搬の際にストローが邪魔になることがない。

【図面の簡単な説明】

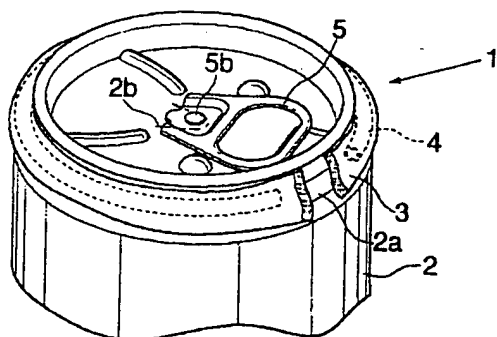
【図1】本発明の1実施形態の飲料用金属缶におけるストロー差し入れ口をあける前の要部の斜視図である。

【図2】同飲料用金属缶におけるストロー差し入れ口をあけた後の要部の斜視図である。

【符号の説明】

- (1) 飲料用金属缶
- (2) 金属缶本体
- (2a) ネック部
- (2b) スコアライン
- (2c) ストロー差し入れ口
- (4) ストロー
- (5) タブ

【図1】



【図2】

